TENNESSEE DEPARTMENT OF EDUCATION
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Culinary Arts III

Primary Career Cluster:	Hospitality & Tourism
Consultant:	Deborah Thompson, (615)-532-2840, Deborah.Thompson@tn.gov
Course Code(s):	5981
Prerequisite(s):	*Culinary Arts II* (5980)
Credit:	1
Grade Level:	11
Graduation Requirements:	This course satisfies one of three credits required for an elective focus when taken in conjunction with other Hospitality & Tourism courses.
Programs of Study and Sequence:	This is the third course in the *Culinary Arts* program of study.
Aligned Student Organization(s):	Family, Career and Community Leaders of America (FCCLA): http://www.tennesseefccla.org/ SkillsUSA: http://tnskillsusa.com/ Brandon Hudson, (615) 532-2804, Brandon.Hudson@tn.gov
Coordinating Work-Based Learning:	Teachers are encouraged to use embedded WBL activities such as informational interviewing, job shadowing, and career mentoring. For information, visit http://tn.gov/education/cte/work_based_learning.shtml.
Available Student Industry Certifications:	ServSafe
Dual Credit or Dual Enrollment Opportunities:	There are no known dual credit/dual enrollment opportunities for this course. If interested in developing, reach out to a local postsecondary institution to establish an articulation agreement.
Teacher Endorsement(s):	(050 and 060), (050 and 453), (051 and 060), (051 and 453), (154 and 155), (450 and 060), (450 and 453), 562, 563, 564, 566, 730
Required Teacher Certifications/Training:	Serve-Safe, National Registry of Food Safety Professionals, or CCE Culinary Chef Educator Industry Certification
Teacher Resources:	http://www.tn.gov/education/cte/HospitalityTourism.shtml

Course Description

Culinary Arts III is an advanced course intended to further equip students with the skills and knowledge needed to pursue a variety of careers in the culinary field. Upon completion of the course, students will be proficient in components of commercial kitchen safety and sanitation, dining room service, food preparation and presentation, bakeshop preparation skills and equipment, and advanced cooking

principles. Students will gain experience in commercial food production and service operations, while preparing for further training at the postsecondary level. Artifacts will be created for inclusion in a portfolio, which will continue throughout the full sequence of courses. Standards in this course are aligned with Tennessee State Standards for English Language Arts & Literacy in Technical Subjects and Tennessee State Standards in Mathematics.* **In addition to implementing the following standards, the course should include a suggested 30 hours spent in a commercial kitchen laboratory**.

Program of Study Application

This is the third course in the *Culinary Arts* program of study. For more information on the benefits and requirements of implementing this program in full, please visit the Hospitality & Tourism website at http://www.tn.gov/education/cte/HospitalityTourism.shtml.

Course Standards

Safety & Sanitations

1) Analyze the concepts and principles of the Hazard Analysis and Critical Control Points (HACCP) program approach to food safety from the Food and Drug Administration (FDA) and U.S. Department of Agriculture (USDA) in relation to meats and seafood. Create an informational graphic to summarize the program's approach and demonstrate ability to follow procedures outlined within. (TN Reading 2, 3, 7)

2) Compile, practice, and critique safety and sanitation procedures related to handling, preparing, storing, and serving food from industry-approved technical manuals and government published fact sheets. Identify, review, and demonstrate common laboratory safety procedures, including but not limited to prevention and control procedures and personal hygiene expectations. Incorporate safety procedures and complete safety test with 100 percent accuracy; include exam in the student portfolio. (TN Reading 3)

Dining Room Service

3) Drawing on examples from culinary blogs and websites, compare and contrast a range of service styles (i.e., buffet, American service, Russian service, and French service) used in modern-day dining rooms. Evaluate when each style would be appropriate for a given audience, setting, or event, and create a presentation to share findings with the class. (TN Reading 6, 9)

4) Demonstrate the ability to properly preset a dining area according to one of the commonly used place settings (i.e., American, a la carte, and banquet). Evaluate the different styles to fold napkins and select one style to demonstrate in a peer teaching environment. (TN Reading 3)

Food Preparation

For each of the following food types, prepare a "cheat sheet" to include as part of a food preparation index in the student portfolio. The index will address forms, preparation methods, classification and grading processes, receiving and storage practices, and a sample standardized recipe and photograph of the prepared dish. For each entry, draw on relevant culinary research and guidelines from regulatory agencies and organizations to support information included in the index.

Dairy & Eggs

5) Synthesize research from the National Dairy Council to determine the composition of milk. Summarize in a graphic the percentage of required butterfat content in various milk products and high butterfat dairy products. In the graphic, include a description of which product is best suited for different functions in the kitchen; outline guiding principles when cooking with milk, citing evidence from an example dish. (TN Reading 2, 4, 7; TN Writing 4)

6) Identify the three most common milk products (i.e., evaporated milk, sweetened condensed milk, and dried milk powder) used in the foodservice industry. Compare and contrast the different concentrations and compositions of each. Compile a collection of recipes in which each product (independently or in combination) may be used. (TN Reading 1, 9)

7) Research the history and use of cultured dairy products from early civilizations to the present. Outline the processes used in culturing, noting the different types of bacteria that are added to the milk to create each product. Compare the taste, ingredients, and cost of different cultured dairy products, and explain these differences to a peer audience as would a foodservice professional. (TN Reading 2, 4, 9; TN Writing 4, 7)

8) Compare and contrast the chemical properties of butter and margarine, citing evidence pertaining to molecular structure, nutritional facts, and nutritional claims. Justify why foodservice kitchens use clarified butter in place of butter substitutes. Demonstrate the multistep procedure for clarifying butter, noting temperature and time during each step. (TN Reading 3, 9; TN Writing 2, 7)

9) Research the cheese making process, describing how various stages of the process impact the flavor, shape, and color of cheese. Compare and contrast the roles of coagulants, bacteria, curds, and whey in different cheese types (i.e., fresh, soft, medium, firm, hard, blue, processed, and stretched cheese). Demonstrate the process of making cheese or yogurt product by following a multistep recipe. (TN Reading 3, 9; TN Writing 7)

10) Referring to research from sources such as the American Egg Board or the Incredible Egg website, summarize the anatomy of eggs, and categorize the forms, grades, and sizes in which eggs may be purchased. Evaluate the storage procedures and principles, especially noting the temperature, time, and storage considerations concerning an egg's porous shell. Compile a collection of recipes highlighting the diverse role of eggs in commercial kitchens. (TN Reading 2, 4, 5, 7; Writing 6)

Meats & Poultry

11) Identify major species and breeds of livestock and poultry utilized for meat production. Describe the composition of the meat (i.e., muscle, connective tissues, fat, and bones) and its impact on the quality analysis of the meat, including, but not limited to, marbling. Write an informative text summarizing the effects of aging on the texture of meats and poultry. (TN Reading 1, 5; TN Writing 2, 9)
12) Analyze the United States Department of Agriculture (USDA) inspection and grading procedures for meat. Summarize how meats are graded, classified, and inspected. Examine how meat

carcasses are cut into primal and subprimal cuts of meats, outlining the importance of uniform portioning. (TN Reading 2, 4, 9; TN Writing 4, 8)

13) Summarize how poultry is classified by bird type, size, and age in the foodservice industry. Craft an explanation supporting how the size of poultry items affects the portion control, tenderness, and cost of dishes. Calculate the price of a whole bird compared to the cost of purchasing individual pieces by fabricating a whole chicken. (TN Reading 1; TN Writing 2; TN Math N-Q)

14) Compare and contrast the differences in mechanical and chemical tenderizers used in meat preparation. Discuss how the cut of meat influences the type of tenderizer and cooking method used when preparing. Research and develop a corresponding data table for the proper cooking methods of each cut. (TN Reading 7, 9)

Bakeshop Basics

15) Identify, describe, and effectively demonstrate the use of hand tools and smallwares used in the bakeshop area of the commercial kitchen. Using supporting evidence from a variety of equipment manuals and fact sheets, create an informational guide to differentiate the functions, cleaning procedures, storage, and examples of proper use of tools used in commercial foodservice. (TN Reading 1, 4, 9; TN Writing 2, 4, 9)

16) Compare and contrast the variety of mixing methods used in commercial kitchens. Demonstrate and practice these methods determined by the nature of the ingredient and desired product. Mixing methods include, but are not limited to:
    a. Beat
    b. Blend
    c. Creaming
    d. Cut in
    e. Fold
    f. Knead
    g. Whip

    Either record a video or take a picture to demonstrate mastery of techniques to place in the student portfolio. Execute proper mixing techniques when mixing ingredients in labs. (TN Reading 3, 7)

17) Summarize from recipes and other culinary resources the differences in baking ingredients used in commercial kitchens, and describe the physical properties of each:
    a. Flour (high-gluten, bread flour, all-purpose, pastry, cake, whole wheat, self-rising, rye flour)
    b. Sweeteners (granulated sugar, powdered sugar, brown sugar, molasses, honey, and corn syrup)
    c. Shortening
    d. Leavening agents (chemical and yeast)
    e. Chocolate (powder, butter, and coating)

    Create a chart that describes which ingredients are best suited for each function in the bakeshop, citing an example dish with claims from research that supports the rational provided. (TN Reading 2, 4; TN Writing 1)

Bakeshop Preparation

Quick versus Yeast Breads

18) Summarize the differences in yeast breads, quick breads, and traditional batters, noting the differences in leaveners, preparation/mixing methods, and baking methods. Create an outline of the scientific processes that occur in mixing, kneading, and proofing yeast breads. (TN Reading 2, 5; TN Writing 2)

19) Compile a collection of recipes from multiple sources that illustrates the diversity of bread products in commercial kitchens. Demonstrate proper preparation methods to prepare one or more of the selected recipes. (TN Reading 3)

Cookies

20) Summarize and practice the two main mixing methods (one-stage and creaming) of cookies from sample recipes, notating the multiple steps involved. Analyze the forming techniques of cookies (i.e., drop, rolled, spritz/pressed, sheet, icebox, and bar), and describe how each contributes to the overall appearance, flavor, and texture, citing evidence from culinary textbooks and research gathered in the kitchen laboratory. (TN Reading 1, 2; TN Writing 2, 4, 9)

21) Compile a collection of cookie recipes from multiple sources. Develop an original recipe, taking into consideration the ingredient proportions, flavor profile, and presentation of the final product. In small groups, review and revise the recipes of peers. Take a photograph of the prepared cookie and place in the student portfolio. (TN Reading 7; TN Writing 5)

Pies and Tarts

22) Differentiate the distinguishing qualities of pies and tarts. Research different piecrust recipes and the 3-2-1 dough method, making note of the multistep procedures and paying close attention to the ingredients, temperature and mixing methods, and rolling and forming steps. Evaluate a variety of pie crusts using different preparation methods. (TN Reading 1, 3; TN Writing 9)

23) Summarize the different types and characteristics of pie fillings (i.e., fruit, liquid, cream, and chiffon fillings), citing examples from recipes and cookbooks. Synthesize information concerning the chemical changes that happen when certain thickening agents are used. Examples of thickeners include:
    a. Cornstarch in fruit pies
    b. Arrowroot in fruit pies
    c. Eggs in liquid fillings

    (TN Reading 1, 9; TN Writing 2)

24) Choose a fruit tart recipe from an online collection approved by the instructor. Using the recipe, make modifications to create an original multistep fruit tart recipe that follows proper safety guidelines. Outline recommendations to select a fruit for garnishing. Support recommendations by explaining the process of oxidation and the importance of acidulation when using certain fruits. (TN Reading 7, 9; TN Writing 1, 4, 9)

25) Evaluate through taste test/comparison the differences between in-house made and convenience bakeshop products for taste, price, and appearance. Using a vendor website or catalog, compare the cost of the convenience product to the in-house made products. In a presentation, make a final recommendation for which product would be appropriate for a given situation or event, citing considerations such as cost-effectiveness, flavor, presentation, and intended audience. (TN Reading 9; TN Writing 1, 9; TN Math N-Q)

The following artifacts will reside in the student's portfolio:

- Safety and Sanitation assignments
- Dining Room Service artifacts
- Collection of recipes
- Dairy and eggs artifacts
- Meat and poultry artifacts
- Bakeshop basic artifacts
- Pictures of skills

Standards Alignment Notes

*References to other standards include:

- TN Reading: Tennessee State Standards for English Language Arts & Literacy in History/Social Studies, Science, and Technical Subjects; Reading Standards for Literacy in Science and Technical Subjects 6-12; Grades 11-12 Students (page 62).
    - Note: While not directly aligned to one specific standard, students that are engaging in activities outlined above should be able to also demonstrate fluency in Standard 10 at the conclusion of the course.
- TN Writing: Tennessee State Standards for English Language Arts & Literacy in History/Social Studies, Science, and Technical Subjects; Writing Standards for Literacy in History/Social Studies, Science, and Technical Subjects 6-12; Grades 11-12 Students (pages 64-66).
    - Note: While not directly aligned to one specific standard, students that are engaging in activities outlined above should be able to also demonstrate fluency in Standards 3 and 10 at the conclusion of the course.
- TN Math: Tennessee State Standards for Mathematics; Math Standards for High School: Number and Quantity.
    - Note: The standards in this course are not meant to teach mathematical concepts. However, the concepts referenced above may provide teachers with opportunities to collaborate on lesson planning. Students who are engaging in activities listed above should be able to demonstrate quantitative reasoning as applied to specific technical concepts. In addition, students will have the opportunity to practice the habits of mind as described in the eight Standards for Mathematical Practice.
- P21: Partnership for 21st Century Skills Framework for 21st Century Learning
    - Note: While not all standards are specifically aligned, teachers will find the framework helpful for setting expectations for student behavior in their classroom and practicing specific career readiness skills.